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| APPLICATION NO.    | FILING DATE               | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/531,979         | 10/21/2005                | Uri Arkashevski      | U 015742-5          | 5790             |
| LADAS & PAF        | 7590 09/04/200<br>RRY LLP | EXAMINER             |                     |                  |
| 26 WEST 61ST       | STREET                    | HOGAN, JAMES SEAN    |                     |                  |
| NEW YORK, NY 10023 |                           |                      | ART UNIT            | PAPER NUMBER     |
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|                    |                           |                      | 09/04/2008          | PAPER            |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| Application No.   ARKASHEVSKI ET AL.  |   |   |   |  |  |  |
|---|---|---|---|--|--|--|
| ## Examiner   JAMES S. HOGAN   3752    ## The MAILING DATE of this communication appears on the cover sheet with the correspondence address  ## Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  **Extresions of time rays be available under the proteions of 37 CPH 1.136(b). In no evert, however, may a repty be timely find of the proteions of 37 CPH 1.136(b). In no evert, however, may a repty be timely find.  **Extresions of time rays be available under the proteions of 37 CPH 1.136(b). In no evert, however, may a repty be timely find.  **Extresions of time rays be available under the proteions of 37 CPH 1.136(b). In no evert, however, may a repty be timely find.  **Extresions of time rays and a repty of the repty with by statistic part of water and place of repty settlem to receive the receiver of the protein of the communication.  **Extresions of timely find.** The protein of the repty settlem the relating table of the communication.  **Extresions of timely find.** The protein of the repty settlem the relating table of the communication.  **Extresions of timely find.** The protein of the repty settlem and place of the protein of the repty settlem.**  **Extresions of timely settlem.** The protein of the protein o   |   | Application No.   | Applicant(s)  |  |  |  |
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| Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  1 If NO period for intering to be activated under the processor of 3 CRF 1.130(a). In no event inverver, may a reply 50 terrory field  1 If NO period for reply is specified above, the maximum statebulary period will apply and will expire SIX (9) MONTHS from the mainting desert of this communication.  1 Pallive to reply within the set or careaded period for reply will by statistic, cause the application to become PANNDFOED (50 U.S.C. § 133). Any reply received by the Clinica later than the meaning date of this communication.  1 Pallive to reply will be the set of the SIX (9) MONTHS from the mainting date of this communication.  2 Pallive to reply will be the set of the SIX (9) MONTHS from the mainting date of this communication.  2 Pallive to reply will be set of the SIX (9) MONTHS from the mainting date of this communication.  2 Pallive to reply the Clinica state that in the meaning date of this communication.  2 Pallive to reply the Clinica state that in the meaning date of this communication.  3 Pallive to reply the Clinica state that in the meaning date of this communication.  3 Pallive to reply the Clinica state that the meaning date of this communication.  3 Pallive to reply the Clinica state that the meaning date of this communication.  3 Pallive to reply the Clinica state that the meaning date of this communication.  4 Pallive to reply the Clinica state that the meaning date of this communication.  4 Pallive to reply the Clinica state that the meaning date of this communication.  4 Pallive to reply the Clinica state that the meaning date of this communication.  4 Pallive to reply the state of the Clinica state that the Clinical state of the | Office Action Summary   | Examiner  |   |  |  |  |
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| Paper No(s)/Mail Date <u>12/5,2/25,6/16</u> . 6) Other:   | Notice of References Cited (PTO-892)     Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Da  5) Notice of Informal F  | ate   |  |  |  |

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### **DETAILED ACTION**

1. Applicant's election without traverse of Group 1, claims 260-278 in the reply filed on July 11, 2008 is acknowledged.

# Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 3. Claims 260, 263, 266, 269, 270, and 275 are rejected under 35 U.S.C. 103(a) as being anticipated by U.S. Patent No 6,133,546 to Bains.
- 4. As per claim 260, Bain discloses (see figure 2) a system for de-icing windshields having a liquid reservoir (2). a vehicle surface liquid heating assembly (20) receiving a liquid from the liquid reservoir, the vehicle surface liquid heating assembly having a heat-conductive element (21), and a liquid heating enclosure (24) defining a liquid heating volume including a primary liquid heating volume portion (8) and a secondary liquid heating volume portion (22), separated by the heat-conductive element, the primary liquid heating volume portion including a heat exchanger (9) for directly heating liquid in the primary liquid heating volume portion and for indirectly heating liquid in the secondary liquid heating volume portion via the heat-conductive element, the heat-conductive element defining a cover, thus containing the primary liquid heating volume portion, and a heated liquid spray control subassembly (30-32) employing the vehicle

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surface liquid heating assembly and the vehicle surface liquid spraying assembly for providing a spray of heated liquid onto the vehicle surface (16).

- 5. As per claim 263 herein the enclosure defines a primary liquid flow pathway in the primary liquid heating volume portion and a secondary liquid flow pathway in the secondary liquid heating volume portion, the secondary liquid flow pathway supplying liquid (at (25)) to the primary liquid flow pathway.
- 6. As per claim 266, the primary liquid flow pathway is defined by the liquid heating enclosure (24) and by the heat-conductive element (21).
- 7. As per claim 269, the heat-conductive element has an aperture (at (25)) to permit liquid communication from the secondary liquid heating volume portion (21) to the primary liquid heating volume portion (8).
- 8. As per claim 270 the secondary liquid heating volume portion (21) includes at least one displaceable outer wall portion (24) providing freeze protection by virtue of its displaceability (Col. 4, line 38).
- 9. As per claim 275, the vehicle surface shown by all appearances in Figure 2 is a front vehicle windshield surface.

## Claim Rejections - 35 USC § 103

- 10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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11. Claims 264, 265, 267 and 268 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No 6,133,546 to Bains.

- 12. As per claim 264 and 268, Bains is silent as to the specific material that makes up the material of the primary liquid heating volume, that ism, the conductive element, however, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected a highly heat conductive material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. See *in re Leshin*, 125 USPQ 416.
- 13. As per claim 265 and 268, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have had the material forming the primary fluids as being more heat conductive (metal) than that of the secondary fluid volume (plastic, or insulatory), since Bains teaches non-heat conductive properties (Col. 4, line 38).
- 14. As per claim 267, Bains is silent as to defining turbulent flow primary liquid flow pathway in any liquid heating volume portion, however, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have operated the apparatus of Bains so as to create turbulent flow, since the claimed invention and the prior art are not patentably distinguished. The apparatus of Bains is structurally is capable of creating turbulent flow via its pump (5) and therefore meets the claim.
- 15. As per claim 276, Bains teaches spraying onto a vehicle windscreen, but is silent as to the use of the heated spray onto a radar antenna surface, however, it would have

been obvious to one having ordinary skill in the art at the time the invention was made, since the claimed invention and the prior art are not patentably distinguished. The apparatus of Bains is structurally is capable of spraying onto whatever surface is desired, and therefore meets the claim.

- 16. Claims 274 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No 6,133,546 to Bains in view of U.S. Patent No. 6,912,357 to Bissonnette et al.
- 17. The rejection of claim 273 above serves as the basis for the following. As per claim 273, Bains does not teach a heat exchanger defined by first and second conduits. Bissonnette et al teaches a fluid heater having first (100) and second (102) conduits, with their use with a windscreen cleaning system. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the apparatus of Bains with the two-conduit heat exchanger of Bissonnette et al in order to eliminate the use of electrical devices for fluid.

#### Allowable Subject Matter

18. Claims 261, 271, 272, 277 and 278 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is as follows:

- U.S. Patent No. 6,892,417 to Franco et al
- U.S. Patent No. 7,051,799 to Wu et al

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U.S. Patent No. 7,190,893 to Kuebler et al

U.S. Patent No. 4508957 to Rocchitelli

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES S. HOGAN whose telephone number is (571)272-4902. The examiner can normally be reached on Mon-Fri, 6:00a-3:00p EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571)272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S. H./ Examiner, Art Unit 3752

/Len Tran/ Supervisory Patent Examiner, Art Unit 3752